UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAY - 5 2014

To All Interested Government Agencies and Public Groups:

In accordance with the U.S. Environmental Protection Agency's (EPA) procedures for the preparation of environmental impact statements (EIS), an environmental review has been performed on the proposed agency action below:

Project Name:	**Von Nieda Park Improvement Project**
Purpose of Project:	The purpose of the project is to alleviate flooding within Von Nieda Park and surrounding residential properties. This project will increase Von Nieda Park's functionality and safety, improve the quality of Park amenities, and help protect adjacent residential properties.
Project Originator:	City of Camden and Cooper's Ferry Partnership, Camden County, NJ 08102
Project Location:	Von Nieda Park, City of Camden, Camden County, NJ
Project Description:	The project consists of implementing stormwater management and controls in Von Nieda Park to improve collection and conveyance of stormwater runoff to reduce flooding in the park. The project includes installation of detention basins; bio-retention basin(s); separation of stormwater and sewage infrastructures; relocation and reconstruction of little league baseball fields; construction of pervious parking lots and American with Disabilities Act parking stalls; and provide fencing, landscaping site amenities, and field restoration.
EPA Grant Number:	XP-97291604-0
Estimated Project Cost:	$ 964,300
EPA Grant:	$ 964,300

Based on information provided by Cooper's Ferry Partnership and the City of Camden, and other existing information, our assessment indicates that no significant adverse environmental impacts will result from the proposed action. Consequently, we have made a decision not to prepare an EIS on the project. The Environmental Assessment (EA) document provides recommendations that were consulted upon with the project's proponent and are connected to the EA's conclusions.

All supporting documents, along with the EA (copy enclosed,) are on file at the offices of the EPA Region 2 and in Camden City Hall, Room 105, 520 Market Street, Camden, NJ 08102. The EA is also available on EPA Region 2's website at http://www.epa.gov/region02/spmm/r2nepa.htm.

Comments supporting or disagreeing with this decision may be submitted to EPA for consideration. All comments must be received within 30 calendar days of the date of this finding of no significant impact. Please address your comments to: Grace Musumeci, Chief, Environmental Review Section, at the letterhead address. No administrative action will be taken on the project for at least 30 calendar days after the date of this FONSI.

Sincerely,

Judith A. Enck

Judith A. Enck
Regional Administrator

Enclosure

Environmental Assessment

I. Project Identification

Name of Project: Von Nieda Park Improvement Project

Name & Address of Applicant:
City of Camden
P.O. Box 95120
Camden County, NJ 08101-4120

Cooper's Ferry Partnership
One Port Center
2 Riverside Drive, Suite 501
Camden, NJ 08103

Project Location:
Von Nieda Park
City of Camden, Camden County,
New Jersey

Project Costs for the Proposed Action:

Total Project Cost	$964,300
Total Eligible Project Cost	$964,300
Estimated EPA Grant Funds	$964,300

II. Project Area Existing Condition

Von Nieda Park (Park) is a public park in the Cramer Hill section of the City of Camden (City) in Camden County, New Jersey (NJ) as shown in Figure 1. The Park was constructed in the 1940s as part of a project to fill Baldwin's Run, which was a tributary to the Delaware River Back Channel (Channel). The 18.75-acre Park is generally level and comprises baseball and soccer fields, basketball courts, a bike path, playground, tennis court, tennis wall, the Cramer Hill Community Center, and vacant land. The Park is surrounded by residential homes to the north and south and extends from the Conrail railroad to the east and ends at Harrison Avenue with the Channel to the west. Von Nieda Park is situated at the lowest elevation in Cramer Hill and subjected to frequent flooding. Elevation at the Park ranges from a high of approximately 24 feet above sea level at the southwestern side of the site at 29th Street and Arthur Avenue to a low of approximately 6 feet above sea level at Harrison Avenue south of Lois Avenue.

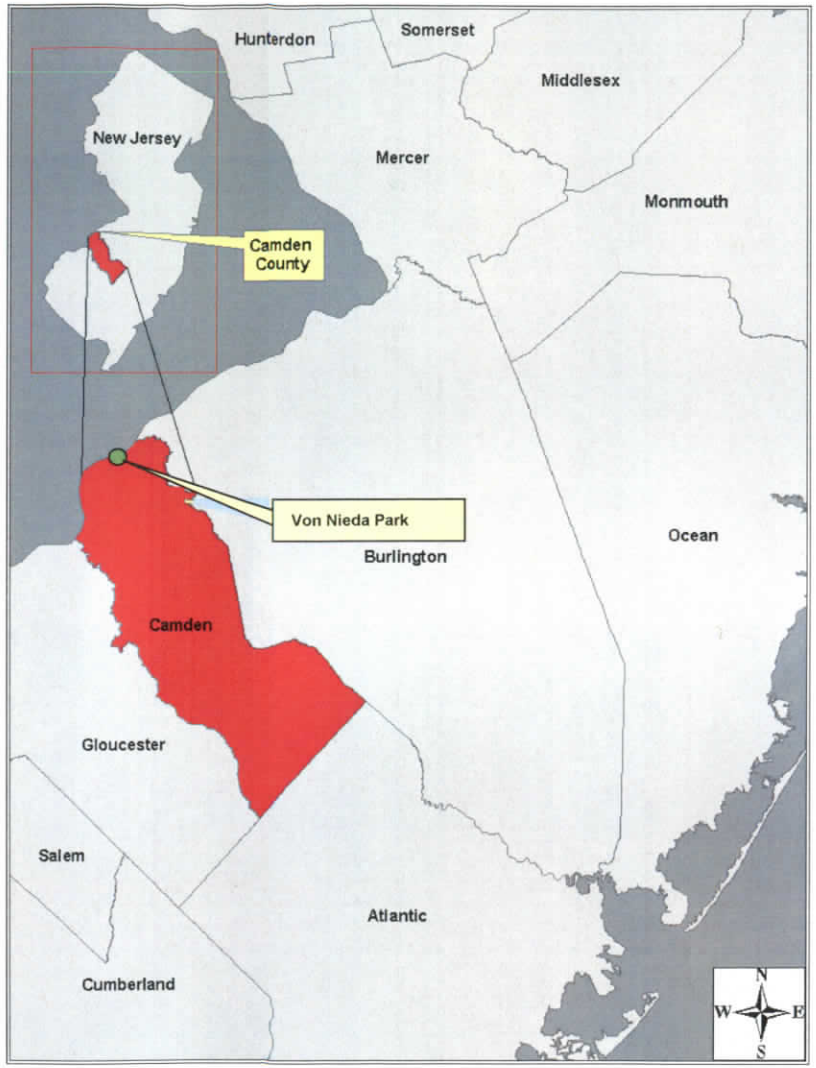

Figure 1 – County Location Map

Von

Figure 2 – Nieda Park

There are four sections that describe the Park as shown in Figure 2:

1. This area is bound by Hayes Avenue and 29th Street; contains two baseball fields and hard surfaced play area. A gravel access drive is used as a parking area for sporting events and maintenance. Some pedestrian benches and no pedestrian walkways are present. The baseball fields are situated in a depression, which retains stormwater after precipitation events.

2. This area is bound by Hayes Avenue, 29th Street, Reeves Avenue, and River Avenue; contains a bike path and a soccer field. The bike path is in fair condition. The soccer field sits lower than the existing roadways and impounds stormwater runoff. The soccer field grass cover is only 30 percent due to being consistently wet from flooding and field use in wet conditions.

3. This area bound by River Avenue, Pierce Avenue, 29th Street and 30th Street; contains basketball courts, playgrounds, recreational center, tennis court, wall ball court, and parking areas. Pierce Avenue floods during large magnitude storm events. The basketball courts and recreational areas flood. A small pocket of standing water occurs here due to inadequate grading. A depression along 30th Street impounds stormwater.

4. This area is bound by Pierce Avenue, Harrison Avenue, and residential homes; contains basketball fields, a maintenance building, and parking facilities. This section of the park has a generally flat slope and has multiple pockets of standing water. There are stormwater inlets located between the baseball fields that are deteriorated and filled with debris. The inlets are depressed and pose a hazard to residents walking around the outer fences of the baseball fields. This section of the park does not contain pedestrian walkways.

Based on community accounts, review of surveys, reports, and field investigations, the Park and nearby residences experience flooding on a frequent basis during wet weather events. Tidal influence from the Channel, being located in a floodplain, combined stormwater and sewer infrastructure with lack of maintenance, poor site grading and drainage are the factors that contribute to flooding within the Park.

Cramer Hill is serviced by a combined sewer system (CSS) consisting of interconnecting sanitary sewers and stormwater sewers, and operated by the Camden County Municipal Utilities Authority (CCMUA). Combined wastewater and stormwater flows are conveyed to the Baldwin's Run Pump Station on 32nd Street. These flows are pumped by a 48-inch diameter pipe to the CCMUA wastewater treatment plant. When a stormwater flooding event occurs, the pump station is turned off, flood gates are opened, and combined flows discharge to the Channel through combined sewer overflow (CSO) outfalls.

The portion of the CSS that services the Park discharges into the Channel at 32nd Street and is unable to handle most precipitation events. When the Channel is at

high tide, the pipes in the Park are filled with water and the sewer inlets begin to overflow.

In addition, the CSS pipes and inlets are also filled with excess debris and heavy silt which limits the capacity, restricting stormwater conveyance. The excess silt located within the sewer system combined with the high tide elevation makes the Park a prime location for chronic flooding.

III. Purpose and Need for the Project

During and after a rainfall event, wastewater overflows the CSS and results in ponding in the Park for days. Sometimes flooding extends to nearby residential properties surrounding the Park. The purpose and need of this project is to alleviate flooding within the Park and surrounding residential properties. Accomplishing this will increase functionality and safety of the Park, improve the quality of the Park amenities, and help protect adjacent residential properties.

IV. Evaluation of Alternatives

A. No Action Alternative

Under the "No Action" alternative, combined sewer flows will result in continued flooding and loss of usability of the recreational fields and other Park amenities after low magnitude storm events. Surrounding homes and streets will also have continued public health impacts, roadway hazards, and property damage from frequent flooding conditions. Combined sewer overflows will continue to enter the Channel through CSO outfalls. The "No Action" alternative was rejected for failure to satisfy the purpose and need. Other stormwater management and CSS alternatives were evaluated.

B. Stormwater Management and Combined Sewer Systems Alternatives

Three conceptual alternatives were evaluated to improve stormwater control and management, and to separate the stormwater sewage systems. All of the proposed alternatives evaluated modifications to the low lying areas of the Park, reconstruction of damaged storm inlets and pipes, and modifications to areas that do not allow for positive stormwater flow.

1) The storm sewer inlets would be isolated from the CSS and a separate stormwater outfall would be constructed at the 32nd Street regulator (where existing CSO discharges). The stormwater pipe would run along Harrison Avenue and extend to 32nd Street to the proposed outfall. This alternative was deemed not to be feasible and rejected for the following reasons:

- Pipe discharge elevation and maintenance - Any pipe proposed to run along Harrison Avenue to the 32nd Street regulator would have a shallow pipe slope that would be below the manning cleaning velocity and would require almost daily maintenance. Additionally, the discharge location would be below the mean high tide elevation, and the pipe would have minimal effect for the cost.
- Pipe construction - The proposed pipe would be installed in an area that already contains two combined sewer pipes, a water pipe, and gas utilities lines. Placing a third pipe may not fit within the City of Camden right-of-way and would not be feasible to construct. The cost of this alternative would largely increase due to the potential for utility relocations and excavation.

2) The combined sewer structures would be separated within the Park and the storm sewer then reconnected to the CSS with a tideflex valve and pump at Harrison Avenue. The tideflex valve would prevent stormwater backflow during high tides and the pump would continuously convey stormwater. This alternative was deemed not to be feasible and rejected for the following reasons:

   - Pumping cost and maintenance - The City does not have the resources to maintain a stormwater pumping system.
   - Upstream flooding - If the City implemented a pumping system, this could cause flooding at other areas within the CSS.

3) The storm sewers would not be separated within the Park, but this alternative considers raising the elevation of the low lying areas of the Park to be outside the NJDEP Flood Hazard Area. This alternative was deemed not to be feasible and rejected for the following reason.

   - Flooding of neighboring properties - If the elevation within the Park were raised so that the Park no longer floods, then there is a potential that the surrounding properties could experience worse flooding.

C. Detailed Description of the Selected Plan

To control flooding issues in the Park and to improve its overall function, the recreational amenities on site will need to be reoriented to accommodate the following proposed improvements:

1. Construct detention basins, bio-retention basin(s) (rain garden).
2. Separate stormwater and sewage for tributaries connected to the detention basins in the Park.
3. Relocate and reconstruct little league baseball fields to areas with raised elevation for better drainage.

4. Install new concrete and asphalt sidewalks and driveway aprons for parking lots.
5. Construct stone parking lots with underlying geotextile fabric.
6. Construct Americans with Disabilities Act (ADA) parking stalls.
7. Provide fencing, landscaping, site amenities, and field restoration.

As shown in Figure 3, the proposed detention basins and bio-retention basins are to provide storage and improve surface and ground water quality as stormwater runoff is collected, contained, and then slowly conveyed to a discharge location. Baseball fields will be relocated and vacant park areas will be utilized to construct storage basins. The additional storage basin capacity and stormwater drainage system improvements will handle excess floodwaters after storm events and should benefit the Park and surrounding residences in Cramer Hill.

The Park's stormwater collection and conveyance system is proposed to be connected to the existing CSS at Harrison Avenue. A tideflex valve will be provided at the connection point to prevent combined sewer backflow.

Figure 3 – Von Nieda Park Improvements

V. Affected Environment - Environmental Consequences of Selected Plan

Von Nieda Park is the largest public park and open space in Cramer Hill and is maintained by Camden County. The Park is located in the 100-year floodplain and floods regularly, which limits its use. The lack of usable and safe parks and recreation areas is of great concern to the residents of Cramer Hill and the goal is to reduce flooding within the Park. Steps to minimize adverse effects on the environment are discussed in Section VII.

1. Archaeology & Historical Resources

The October 2012 Phase IA Archaeological Survey (AS) concluded that portions of the site had a high potential for historic and prehistoric archaeological resources and recommended further investigation. The December 2012 Phase IB AS addressed the areas of potential effect (APE) identified in the Phase IA. The Phase IB survey identified landfill deposits containing artifacts spanning the early- through late- twentieth century. However, no potentially significant archaeological resources were identified. Background research indicated that the former Spicer/Wood burial ground, as identified in the Phase IA, may have been located near Van Buren Avenue, between North 28th and North 29th Streets.

Archaeological testing in one particular area was completed east of North 29th Street and south of Hayes Avenue. The APE identified deep mid-twentieth-century fill over relict wetland soils. Close interval testing on a hill east of Arthur Street encountered disturbed soil layers containing cultural material associated with an early twentieth-century house. These areas do not represent potentially significant archaeological resources. Additionally, a 40- to 50-foot long dry laid fieldstone wall was identified parallel to and five feet east of North 29th Street. This wall is interpreted as a section of a square enclosure associated with the circa 1888 to 1897 Stockton Water Company (SWC) pumping station. This feature was registered as the SWC site and received the Smithsonian designation 28-Ca-127. No other structural remains associated with the former pumping station were identified. This feature does not represent a potentially significant archaeological resource. The Phase IB survey concluded that no further archaeological survey is recommended.

According to the U.S. Army Corps of Engineers' (USACOE) January 8, 2014 Statement of Findings (CENAP-OP-R-2011-0078-24) for the Von Nieda Park and Baldwin's Run Tributary Trail project, the District Cultural Resource Specialist stated that the project has no potential to affect historic properties and consultation with SHPO is not required. EPA concurs with this determination.

2. Surface & Ground Water

Poor surface water quality occurs frequently from Park flooding during both small and large magnitude storm events, which is compounded by tidal influence from

the Channel, CSS back-ups, and poor grading and drainage. Additionally, stormwater from the Park flows into the CSS and overflows are discharged at the 32nd Street CSO outfall into the Channel. The proposed Park improvements to reduce flooding from stormwater runoff were designed to comply with the NJ Stormwater Management Rule (NJSMR). Additional measures were also designed to address surface and groundwater quality issues through the NJSMR.

The stormwater management analysis considered the Park's improvements consisting of a total of 16.674 acres of disturbance. This includes an increase of impervious surfaces by 0.753 acre (0.055 acre of driveway aprons and ADA parking stalls, 0.698 acre of concrete sidewalks and roof areas) and 0.595 acre of pervious gravel parking areas. The stormwater management analysis evaluated peak runoff rates from corresponding 2-, 10-, and 100-year storm events and it was determined that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the Park, hence minimizing potential degradation of surface water quality.

To meet the surface water runoff quality requirements under NJSMR, new impervious parking lot areas and roadways in the Park are required to provide 80 percent total suspended solids (TSS) removal, while the redeveloped parking and roadway areas require 50 percent TSS removal. The proposed concrete parking areas for the ADA parking stalls, asphalt driveway aprons and pervious gravel parking areas, and sidewalks do not require water quality measures. Runoff from the ADA parking stalls drains into the proposed pervious gravel area, runoff from the driveway aprons drains into the roadway. Therefore, no water quality measures are required.

Because Von Nieda Park is located in Planning Area 1 (PA1), which is an urban redevelopment area and in accordance with the NJ regulation NJAC.7:8-5.2, the groundwater recharge requirement does not apply to this project. However, with the pervious parking spaces and grass lined recreational fields, runoff will percolate into the subsurface rather than ponding.

Detention and bio-retention basins within the Park will have the capacity to control runoff and manage stormwater quantity and quality. Groundwater quality should improve as wastewater ponding in the Park will be greatly reduced. Separation of the stormwater collection system from the CSS will improve the water quality in the Channel as the amount of CSO incidents will be reduced.

3. **Soils & Vegetation**

The site is located in a developed urban area and the NJDEP GIS data indicates that the project site is in an urban soil type. The site consists primarily of lawn vegetation, but contains mature street trees along the park boundaries. Species include a variety of deciduous trees, predominantly Sycamore and Pin Oak and limited evergreen species.

By stabilizing vegetation in the flooded areas of the Park, there should be a beneficial improvement to ground cover in the park. Existing viable trees will be protected and preserved to the maximum extent feasible to allow proposed improvements. Pruning and selective removal and control of invasive species, particularly in the area north of Harrison Avenue, will be undertaken to remove hazards and increase general visibility to the river, as permitted by the NJDEP. Trees observed to be in decline or dead would be removed where they are near activity areas and pose a dangerous condition.

4. **Fish & Wildlife**

Even though the project site is located in an extensively developed urban area, the Park provides a habitat to a variety of urban adapted avian and wildlife species including squirrel, rabbit, opossum, raccoon, sparrows, crows, geese, cardinals, blue jays, starlings and grackles. Wooded areas to the north contain bald eagle nesting and foraging habitat as well as a variety of other shoreline and migratory birds. This area is posted with signage indicating "Warning, Endangered Species Area, do not enter to prohibit access during Eagle breeding and nesting seasons."

Wildlife may be slightly impacted during construction activities but after the project is complete, there should be minimal impact to wildlife. For this Park improvement project, there are no NJDEP timing restrictions for construction activities due to the presence of bald eagle habitat north of Harrison Avenue.

5. **Endangered & Threatened Species**

The NJ Natural Heritage Database identifies bald eagle (State endangered) breeding, nesting, wintering and foraging habitat on the parcel of land north of Harrison Avenue. Black-crowned night heron (State threatened) and peregrine falcon (State endangered) were also listed in the database and known to exist within a mile of the project site and/or a habitat is present.

Also listed in the database, is the shortnose sturgeon (Federal/State endangered), which is within the migrating corridor and summering area for the Delaware River. Tidewater mucket (State endangered) wildlife/stream habitat also exists one mile from the project site. Project activities will not impact any threatened/endangered species or their habitats in the vicinity of the project site.

6. **Wetlands**

A December 9, 2011 letter of interpretation from the NJDEP Land Use Regulation Program (LURP) states that there are no Federal and State wetlands on the Park property.

7. **Floodplains**

The project site is located in a tidally influenced floodplain of the Channel with tidal fluctuations that range from -3.12 feet (average lowest tide elevation) to approximately 3.19 feet (mean high tide elevation).

Significant portions of the Park are located within the 100- and 500-year floodplain where the elevation is 9.00 feet above sea level based on Federal Emergency Management Agency (FEMA) Flood Maps. The ground elevation within the Park ranges from 6.00 to 9.00 feet. Therefore, in the event of a 100- or 500-year flood, the entire Park is subject to flooding. The proposed project will not reduce the amount of flooding within the Park during a 100-year flood event; however, the detention basin has the capacity to handle runoff from a 100-year storm. However, sea level rise combined with tidal influences in the Channel, heavier rainfalls, and storm surges will likely increase the number of times when stormwater levels exceed the capacity of the basin within the Park in the future.

8. **Land Use**

Areas of the Park south of Pierce Street are recreational land managed/modified wetlands. The area between Pierce Street and Harrison Avenue is deciduous wooded wetlands and deciduous scrub/shrub wetlands. The area to the north of Harrison Avenue consists of deciduous wooded wetlands, herbaceous wetlands, disturbed/modified wetlands and tidal waters. Residential lands in the Cramer Hill section of Camden generally surround the Park south of Harrison Avenue. Transportation/communications/utilities lands are located to the east and west of the project area north of Harrison Avenue. The project is not expected to affect land use.

9. **Agricultural Lands**

The proposed project site is currently urbanized, there are no agricultural lands in the project area or in the vicinity that could be impacted by project activities.

10. **Designated Coastal Zone**

The project area is not located in New Jersey's coastal zone; consequently, coastal resources will not be affected by the project.

11. **Wild and Scenic Rivers**

The Channel of Delaware River is not registered as a Wild and Scenic River under the National Wild and Scenic River Act.

12. **EPA-designated Sole Source Aquifers**

The Potomac-Raritan and Magothy Formations are within the Coastal Plain Sole Source Aquifer System, which contains the most important and productive aquifers in Camden County. Most of the industries adjacent to the Delaware River and most of the public water supplies and irrigation supplies throughout the County obtain groundwater from these formations. The project will not affect the sole source aquifer as urban soils drain poorly and there are no groundwater wells in the Park.

13. **Designated Wellhead Protection Areas**

Most of the project site is situated in a designated wellhead protection area with either a Tier 1, 2 or 3 protection area classification. A wellhead search was conducted on the NJDEP Public Records Act for the project area and results show that there are no wells and no on-site or ground water use. The Cramer Hill Community Center located on Reeves Street is served with public water supply from potable wells off-site via the City's water supply system.

14. **Traffic**

There will be an increase in vehicular traffic to and onto the site during the construction period. After construction, it is anticipated that the Park will experience greater traffic by pedestrian walkers and joggers, bicyclists and skateboarders. Residents of the Cramer Hill neighborhood would most likely walk or bike throughout the Park. There will be higher automobile traffic to and from the newly constructed parking areas within the Park, but parking is limited.

15. **Odors**

The project should not create any odor issues after construction. During construction, there may be a minor increase in odors from construction equipment emissions. It is unlikely that such minor odors would be noticeable off-site.

16. **Noise**

During construction activities there will be an increase in noise levels on the site from construction equipment. It is not anticipated that the number of vehicles or duration of the construction period will create undue noise impacts on the surrounding residential neighborhood.

17. **Aesthetics**

As the Park is situated in the Cramer Hill neighborhood of Camden, it provides open space and recreational opportunity for the residents in the area. There should be a beneficial impact to aesthetics resulting from the project. Periodically flooded areas which have poor or no vegetation and/or groundcover will be replanted and stabilized. Overall, there should be a beneficial, noticeable

improvement to the Park from present conditions with attractive landscaping, fencing, recreational fields, sidewalks, and increased park maintenance. The project will have no adverse impact on visual resources in the community.

18. **Population & Socioeconomics**

In 2000, the U. S. Census indicated 10,035 residents were living in Cramer Hill which was a loss of less than one percent (%) from the 1990 population of 10,107. The 2000 racial spectrum of Cramer Hill was 22 % white, 27% black, 2% Asian, and 65% Hispanic. The younger population neighborhood consisted of 38% under age 18. There are two Cramer Hill neighborhoods within the eastern side of the

	Pavonia Tract (6009)	**Bideman Tract** (6010)
Demographics		
Population (# of people)	4,456	5,624
Median Age (years old)	25	29.7
Male (%)	48	50
Female (%)	52	50
White (%)	21.6	28.3
Black (%)	28.6	22.5
Some Other Race (%)	49.8	49.2
Hispanic or Latino (%)	71.5	74.5
Owner Occupied Housing (%)	28	54.6
Renter Occupied Housing (%)	72	45.4
Median Household Income	**1,310 households sampled**	**1,688 households sampled**
< $10,000	431 households	----
$15,000 - $19,000	152 households	----
$35,000 - $39,999	117 households	----
$60,000 – $74,999	----	1,000 + households
$75,000 – $99,999	----	237
$125,000 or more	0 households	----
$200,000 or more	----	5 households
Median income for last 12 months	$18,625	$40,561

Table 1: Five Year Estimated Population and Household Income Trends

Park, Pavonia and Bideman Tracts, which are separated by 27th Street that runs in a north and south direction. Within the Pavonia Tract, the mean household income was $21,119 with 34% of the residents over 25 having a high school diploma. Within the Bideman Tract, household income was $28,750 with 47% of the population over 25 years old with a high school diploma. Table 1 shows the estimated population and household income trends from 2006-2010 for the Pavonia and Bideman Tracts.

There should be no effect on the average rate payer in the City or in Cramer Hill as there will be no user fee associated with this project. The proposed Von Nieda Park Improvement project is to be funded by Federal and State grants.

19. **Population Growth & Secondary Impacts of Induced Growth**

The Park is located in an urban, completely developed part of the City and has been in existence since the late 1940's; therefore, the proposed improvements should not generate population growth or secondary impacts of indices growth. The project may encourage greater use of the Park by residents in the neighborhood and region.

20. **Local Air Quality**

On-site air quality due to emissions, including dust and odors, will be minimally impacted by the use of earth moving and other equipment during construction. These minimal impacts are anticipated to be local and short-term due to the limited quantity of heavy equipment anticipated for a limited construction period. Typical construction equipment anticipated on the site includes dump trucks, loaders, backhoes, bobcats and personal cars.

21. **General Conformity & Greenhouse Gas Emissions**

Camden County is located in an Ozone moderate attainment area under the Clean Air Act (CAA). Also, Camden County is ranked non-attainment for particulate matter less than 2.5 microns (PM 2.5).

EPA performed a general conformity applicability analysis calculating emissions of nitrogen oxides (NO_X), volatile organic compounds (VOC), fine particle pollution ($PM_{2.5}$) and sulfur dioxide (SO_2). Table 2 shows the general conformity applicability analysis results for the 2014 construction year. All levels are below the applicable deminimis threshold values; therefore, the project is presumed to conform and no further action is necessary.

Table 2: General Conformity Analysis – Von Nieda Park Improvements

2014 CONSTRUCTION EMISSIONS SUMMARY FOR GENERAL CONFORMITY				
Pollutant	NO_X	VOC	$PM_{2.5}$	SO_2
Off-Road Construction Emissions (tons)	0.783	0.097	0.092	0.001
On-Road Construction Emissions (tons)	0.098	0.034	0.005	0.000
Total Construction Emissions (tons)	0.881	0.131	0.097	0.001
General Conformity Threshold (tons)	100	50	100	100
Percentage Of Threshold	0.88%	0.26%	0.10%	0.001%

EPA conducted a greenhouse gas analysis as shown in Table 3, which includes carbon dioxide (CO_2) emissions from the Park's construction project.

Table 3: Greenhouse Gas Analysis – Von Nieda Park Improvements

2014 CARBON DIOXIDE EMISSIONS SUMMARY	
Off-Road Construction Emissions (tons)	144.638
On-Road Construction Emissions (tons)	14.981
Total Construction Emissions (tons)	159.619

22. **Environmental Justice**

The Environmental Justice (EJ) analysis presented here was performed in accordance with EPA Region 2's Interim Policy (IP) for Environmental Justice. EJSCREEN* was used to examine the potential environmental burden(s) in the community under study, which is the area encompassed by a half-mile radius from the center of the Park and includes a portion of the Cramer Hill community.

Our EJSCREEN assessment summarized in Table 4 shows the rankings (expressed in percentiles) of the 12 EJ indices for the study area. The analysis affects an approximate population of 6,895 people residing within the study area.

* EJSCREEN – a web-based Geographic Information System (GIS) screening tool – considers both environmental conditions and characteristics of the potentially affected population. The information provided in EJSCREEN can be considered in a wide range of program contexts, and will help meet E.O. 12898's call for EPA to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of our programs, policies, and activities. (Sec. 1-101) EJSCREEN contains 12 environmental indicators, which range from estimates of human health risk to proxies for risk such as proximity to hazardous waste sites. The tool also contains six demographic factors, which are combined into two separate demographic indexes (the primary demographic index uses the average of two factors, and the alternative demographic index uses the average of all six). Both the environmental indicators and the demographic factors are calculated at the level of the block group. Each demographic index is then multiplied by an environmental indicator to create an associated EJ Index.

The environmental factors in the table give a rough indication of the potential exposure and proximity to environmental sources. The table also provides demographic indicators including: race, poverty, age, linguistic isolation, and educational attainment for the locality. The rankings provide perspective on how the selected block group compares to NJ or the nation. For example, if a given location is at the 95th percentile nationwide, this means the average person residing in the block group, or buffer area, experiences an EJ index score greater than or equal to that of people living in 95% of the census block group in the U.S.

Table 4 indicates the study area ranks near or above the 80th percentile for eight of the 12 EJ indices – that is, all of the environmental factors, except for ozone, traffic proximity, proximity to Risk Management Plan (RMP) sites, and proximity to major direct wastewater dischargers. Further, the study area's

Selected Variables	Raw Data	State Avg.	State %tile	USA Avg.	USA %tile
Environmental Factors					
Particulate Matter (PM 2.5 in ug/m^3)	12.8	11.4	91	10.7	79
Ozone (ppb)	48.2	48.7	43	46	60
NATA Diesel PM (ug/m^3)	1.31	1.02	71	0.825	80
NATA Air Toxics Cancer Risk (risk per MM)	75	68	67	61	80
NATA Respiratory Hazard Index	4.2	3.8	66	3.1	78
NATA Neurological Hazard Index	0.081	0.077	67	0.063	82
Traffic Proximity	32	130	35	110	48
Lead Paint Indicator (% Pre-1960's Housing)	0.64	0.45	68	0.31	82
Proximity to National Priority List Sites (Facility count/km distance.)	0.43	0.27	85	0.096	97
Proximity to RMP Sites (Facility count/km distance.)	0.2	0.22	76	0.31	64
Proximity to Treatment Storage Disposal Facilities (Facility count/km distance.)	0.27	0.11	94	0.066	96
Proximity to Major Direct Dischargers (Facility count/km distance.)	0.21	0.34	63	0.25	70
Primary Demographic Index	75%	31%	94	34%	93
Minority Population	94%	39%	92	35%	93
Low Income Population	55%	22%	92	32%	84
Linguistically Isolated Population	21%	8%	89	5%	93
Population w/ < Than High School Education	43%	13%	97	15%	95
Population Under 5 years of age	9%	6%	78	7%	74
Population over 64 years of age	7%	13%	24	13%	27

Table 4: EJSCREEN Results for Cramer Hill area of Von Nieda Park

composition of a high percentage of minority and low-income residents is consistent with the high ranking in EJ indices (minority equals 94% as compared to the State average of 39%; and percent low-income equals 55% as compared to a State average of 22%). Taken together, the data suggest that the study area is an EJ community of concern (COC).

Improvements to the Park will not have any anticipated long-term significant adverse impacts on the residents living within the Cramer Hill area of Camden. However, construction activities will have temporary short team adverse impacts on Cramer Hill residences as heavy equipment and trucks will create noise, dust, and contribute to local traffic. These short term impacts will be minor compared to the expected beneficial improvements to the Park that will make it safer and more functional for community use.

23. **Children's Health**

Notable Park improvements will include new reconstructed little league baseball fields with improved stormwater drainage system to minimize flooding impacts and reduce the number of days of Park closures. Improved stormwater management and controls will allow all recreational facilities including fields, walking/bike paths, and a playground within Park to be more accessible by all children and visitors within the Cramer Hill community.

VI. Indirect and Cumulative Impacts

Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular timeframe.

The Von Nieda Park project is one element of the May 2009 Cramer Hill Redevelopment Plan which incorporates residential development, economic development, institutional development, open space development, transportation improvements, infrastructure development/improvements, and environmental remediation. Figure 4 indicates the Concept Plan taken from the Cramer Hill Redevelopment Plan document. The bulk of the redevelopment activity will take place between 2010 and 2020. Mitigation of neighborhood flooding is one of the goals of the redevelopment plan; with new development and the effects of climate change, this aspect may become even more critical to revitalizing the area and making it more sustainable.

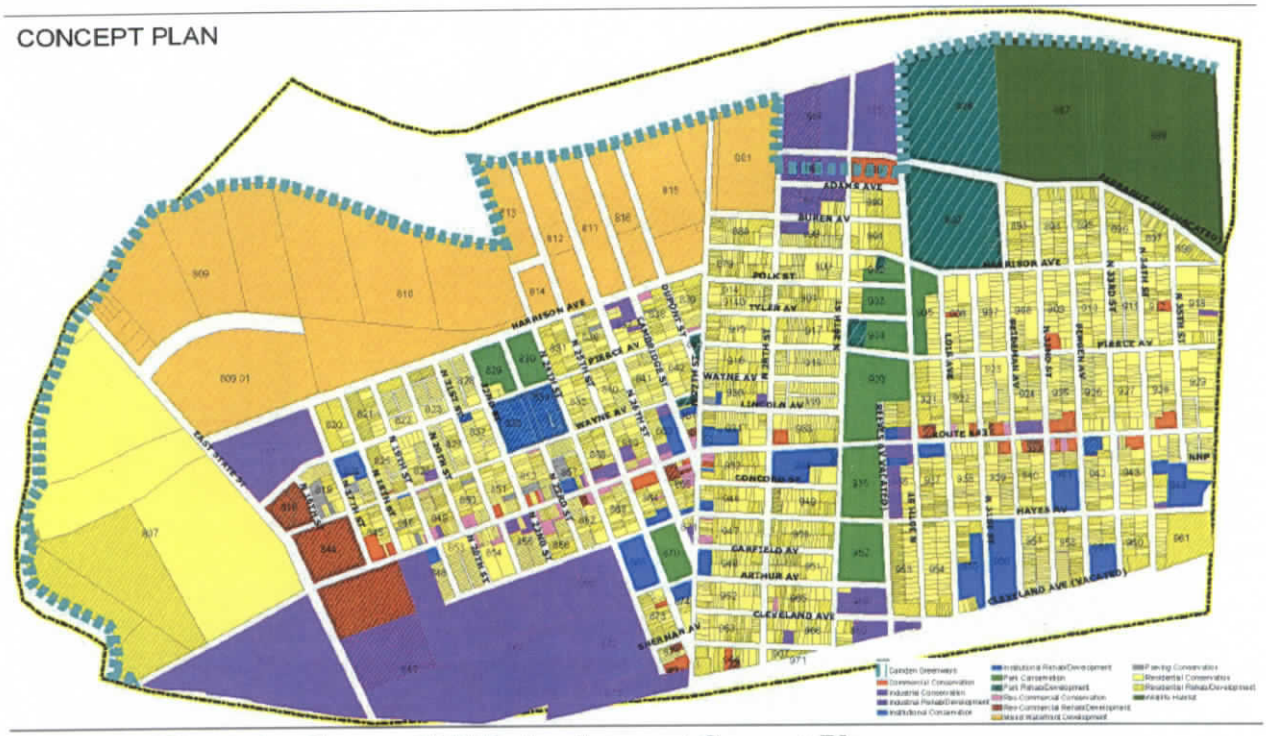

Figure 4 – Cramer Hill Redevelopment Concept Plan

The Baldwin's Run Tributary Trail is another open space project that will connect Von Nieda Park to the Baldwin's Run area to create a future waterfront park with substantial green buffers around and through the Cramer Hill neighborhood. The Tributary Trail project area is north of the Park and Harrison Avenue between 30th and 32nd Streets (see Figure 5). It will consist of the restoration of a previously filled stream, constructing an outfall, installing elevated pedestrian boardwalks that connects to a new observation deck, and creating multi-use nature trails. It is anticipated that both the Von Nieda Park Improvements and Baldwin's Run Tributary Trail construction projects will occur during the same time period to meet the Corps' permit deadline of December 31, 2016.

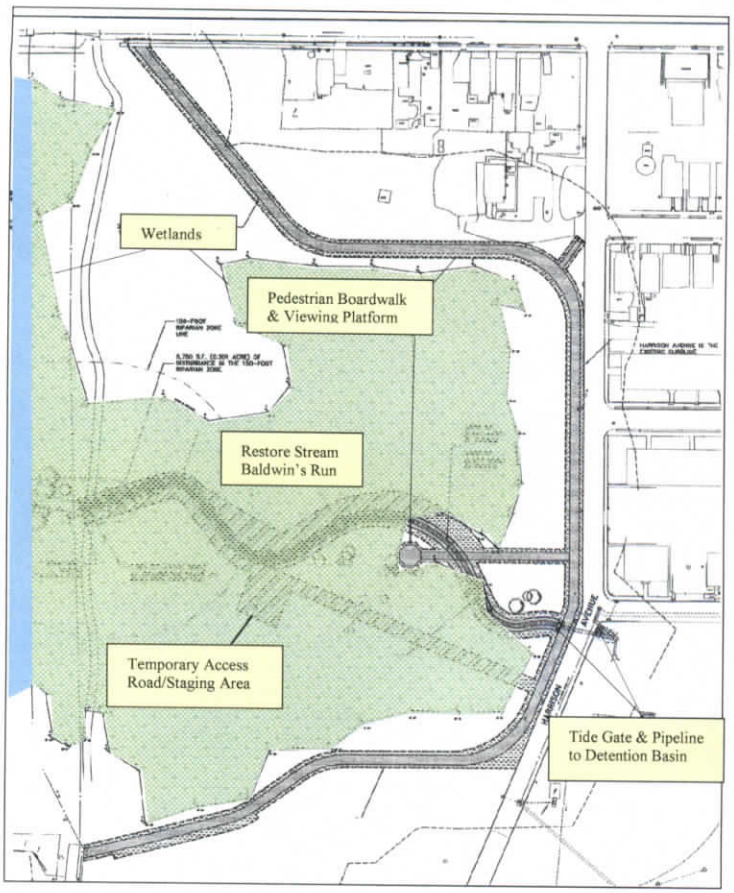

Figure 5 – Baldwin's Run Tributary Trail Project

The goal of the Cooper's Ferry Partnership is to completely separate the storm sewer system from the CSS, requiring a separate stormwater outfall. The most feasible location for a separate stormwater outfall is across from Harrison Avenue on the South Jersey Port Corporation Site. The proposed outfall will consist of a tide-gated structure that is routed to a reconstructed meandering rock-lined stream, Baldwin's Run, which will convey stormwater collected from the Park to discharge into the Channel. The stream restoration project involves reconstructing the original 750-foot portion of Baldwin's Run from the new stormwater outfall structure to the Channel.

The Tributary Trail project site is within New Jersey's coastal zone; contains federal NWI and NJDEP freshwater wetlands and marshes; lies within the 100- and 500-year floodplains; contains a bald eagle foraging, breeding, nesting, and wintering habitat; Federal and/or State threatened and endangered species and/or their habitat may be present on-site and/or in the Channel. Fish common to the Delaware River water way, including the federally endangered shortnose sturgeon, could be present in the Channel near the stormwater discharge point.

On July 29, 2013, the NJDEP issued the Freshwater Wetlands Individual permit, Waterfront Development Upland Individual permit, Waterfront Development In-Water Individual permit and Water Quality Certificate (LURP File 0408-11-

0006.3 FWW130001, WFD130001, and WFD130002) to recreate Baldwin's Run. In addition, the USACOE issued an Individual Permit (CENAP-OP-R-2011-0078-24) on January 17, 2014 for the construction of the Tributary Trail project. Both permits authorize the permanent disturbance of 0.320 acre of wetlands and temporary disturbance of 0.605 acre of wetlands for the construction equipment staging area. The NJDEP permit authorizes permanent disturbance of 0.677 acre and temporary disturbance of 0.938 acre of freshwater wetland transition areas and 0.201 acre of riparian zone. For the remnant Baldwin's Run channel, the USACOE permit authorizes the permanent disturbance of 0.045 acre below the mean high water line. The NJDEP permit conditions prohibit construction activities from December 15 to July 31 and removal of trees with 8 inch diameter base height (without prior authorization) to protect the bald eagle habitat. Both permits have wetland mitigation condition requirements to offset wetland impacts.

USACOE's January 8, 2014 Statement of Findings (SOF) concluded that there is no significant adverse environmental effects from the proposed work. However, besides a required wetland mitigation plan, site remediation and remedial action work plans are also required for review and approval. The SOF included a comment from the National Oceanic and Atmospheric Administration (NOAA), which stated that they concurred with the USACOE determination of no more than minimal impacts to the essential fish habitat. To address the concern for the potential presence of shortnose sturgeon in the Channel, the National Marine Fisheries Service (NMFS) stated that the proposed work is outside of the Delaware River and concurred with the USACOE "no effect" determination.

Table 5 shows the combined emissions for the 2014 construction year for both Von Nieda Park Improvement and Baldwin's Run Tributary Trail projects. Table 6 provides a greenhouse gas analysis, which includes carbon dioxide (CO_2) emissions from the construction of both projects.

Table 5: Construction Emissions – Von Nieda & Tributary Trail Projects

Pollutant	NO_X	VOC	$PM_{2.5}$	SO_2
Off-Road Construction Emissions (tons)	1.516	0.165	0.166	0.003
On-Road Construction Emissions (tons)	0.196	0.068	0.010	0.000
Total Construction Emissions (tons)	1.712	0.233	0.176	0.003

Table 6: Greenhouse Gas Analysis – Von Nieda & Tributary Trail

2014 CARBON DIOXIDE EMISSIONS SUMMARY	
Off-Road Construction Emissions (tons)	211.716
On-Road Construction Emissions (tons)	29.962
Total Construction Emissions (tons)	241.678

VII. Steps to Minimize Adverse Effects on the Environment

The following mitigation measures and greening technologies will be incorporated into the Park improvement project:

1. Soil erosion and sediment control measures will be implemented during construction to capture sediment runoff during storm events.
2. Soil to be used for raising and grading of recreational fields will be clean and contaminant free.
3. Utilize gravel/stone parking lots with underlying geotextile fabric to reduce the number of parking lot areas with impervious surfaces.
4. All vegetation and plantings will be of native species and all non-native and invasive species are to be avoided and/or removed.
5. The NJDEP may place seasonal restrictions or require a management plan for the contractor to use to protect the bald eagle habitat north of the site.
6. Educational trail signs will be placed in strategic locations to add public awareness for environmental protection, especially for bald eagles.
7. Contractors will be responsible for maintaining their equipment and instituting practices that will minimize emissions, such as prohibiting unnecessary idling of vehicles and other equipment.
8. Dust related concerns may be abated by covering and wetting dirt piles, strategic placement of fill material, application of wetting or stabilizing agents, requiring the use of covers for trucks moving dirt, and other practices. The City will work with contractors and the affected public to minimize dust related and air quality impacts from construction activities.
9. Contractors will follow the City's noise control ordinance which prohibits construction and demolition activities between the hours of 6:00 pm and 7:00 am on weekdays or between the hours of 6:00 pm and 9:00 am on weekends and federal holidays.
10. Minimize noise levels from construction equipment by requiring properly equipping machinery with noise attenuation devices (i.e., mufflers).
11. The City will develop and adhere to the Operation and Maintenance Manual containing a stormwater maintenance plan to ensure continuous operation of the Park's stormwater infrastructure.

VIII. Coordination of Environmental Review

A. Public Participation Program

The following meetings were held for the Park improvements project:

- Steering Committee Meetings: June 16, October 7, and February 18, 2010.
- Public Meetings: July 7, 2010 and September 1, 2011.
- Final Stakeholder Meeting: October 12, 2011.

B. Federal, State, and Local Agencies Notified/Consulted

The following organizations and/or groups were either involved in public participation and/or notified/consulted:

Camden County Environmental Commission
Camden County Planning Board
Camden County Soil Conservation District
City of Camden Environmental Commission
City of Camden Planning Board
City of Camden Engineer
Camden County Parks Department
New Jersey Department of Environmental Protection (NJDEP)
NJDEP, Land Use Regulation Program
NJDEP, Fish and Wildlife
NJDEP, Office of Natural Lands Management
NJDEP, Deputy State Historic Preservation Officer
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service

C. Significant Correspondence

1. U.S. Department of Interior, Fish and Wildlife Service; November 5, 2012.
2. NJDEP, Natural and Historic Resources, Historic Preservation Office; November 29, 2012.
3. NJDEP, Division of Land Use Regulation; Permits for Freshwater Wetlands/ Waterfront Development Upland/Waterfront Development In-Water/Water Quality Certificate; July 29, 2013.
4. U.S. Army Corps of Engineers; Permit CENAP-OP-R-2011-0078-24 for Von Nieda Park/Baldwin's Run Tributary Trail Project; January 13, 2013 and January 28, 2013.
5. U.S. Army Corps of Engineers; Statement of Findings/Permit Modification CENAP-OP-R-2011-0078-24 for Von Nieda Park/Baldwin's Run Tributary Trail Project; January 28, 2013.
6. Environmental Protection Agency; Responses to EPA's April 1, 2013 Review Letter for Von Nieda Park Improvement Project; June 6, 2013

IX. References

1. *Environmental Information Document: Von Nieda Park Improvement Project*; Environmental Resource Solutions, Inc.; January 2013.
2. *Phase 1B Archaeological Survey: Von Nieda Park*; Richard Grubb & Associates, Inc.; December 2012.
3. *Phase 1A Archaeological Survey: Von Nieda Park*; Richard Grubb & Associates, Inc.; October 2012.

4. *Stormwater Management Report: Von Nieda Park Improvements*; Remington & Vernick Engineers, Inc.; June 2012; Revised August 2012.
5. *Cramer Hill Now, Neighborhood and Waterfront Park Plan*; Cramer Hill Community Development Corporation and Cooper's Ferry Development Association.
6. *Cramer Hill Redevelopment Plan* City of Camden Division of Planning; May 2009.